=> file reg

COST IN U.S. DOLLARS SINCE FILE TOTAL

> ENTRY SESSION

FULL ESTIMATED COST

0.21 0.21

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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Uploading c:\program files\stnexp\queries\10672052sotwofluorinated.str

http://www.cas.org/ONLINE/UG/regprops.html

=>

STRUCTURE UPLOADED L1

=> Uploading c:\program files\stnexp\queries\10627052cyano.str

STRUCTURE UPLOADED L2

=> Uploading c:\program files\stnexp\queries\10672052carboxylate.str

STRUCTURE UPLOADED L3

Uploading c:\program files\stnexp\queries\10672052sotwoalkyl.str

STRUCTURE UPLOADED L4

=> s l1 sss full FULL SEARCH INITIATED 16:10:26 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED -3 TO ITERATE

3 ITERATIONS 0 ANSWERS 100.0% PROCESSED SEARCH TIME: 00.00.01

=> s 12 sss full FULL SEARCH INITIATED 16:10:38 FILE 'REGISTRY' 21 TO ITERATE FULL SCREEN SEARCH COMPLETED -

0 SEA SSS FUL L1

100.0% PROCESSED 21 ITERATIONS 14 ANSWERS SEARCH TIME: 00.00.01

L6 14 SEA SSS FUL L2

=> s 13 sss full

 $L_5$ 

```
Connecting via Winsock to STN
Welcome to STN International! Enter x:x
LOGINID:ssspta1756mja
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                      Welcome to STN International
                  Web Page URLs for STN Seminar Schedule - N. America
 NEWS 1
                  "Ask CAS" for self-help around the clock
 NEWS 2
 NEWS 3 FEB 27 New STN AnaVist pricing effective March 1, 2006
 NEWS 4 APR 04 STN AnaVist $500 visualization usage credit offered
 NEWS 5 MAY 10 CA/Caplus enhanced with 1900-1906 U.S. patent records
 NEWS 6 MAY 11 KOREAPAT updates resume
 NEWS 7 MAY 19 Derwent World Patents Index to be reloaded and enhanced
 NEWS 8 MAY 30 IPC 8 Rolled-up Core codes added to CA/CAplus and
                  USPATFULL/USPAT2
 NEWS 9 MAY 30
                 The F-Term thesaurus is now available in CA/CAplus
                 The first reclassification of IPC codes now complete in
 NEWS 10 JUN 02
                  INPADOC
         JUN 26
                 TULSA/TULSA2 reloaded and enhanced with new search and
 NEWS 11
                  and display fields
                 Price changes in full-text patent databases EPFULL and PCTFULL
 NEWS 12
         JUN 28
 NEWS 13 JUl 11 CHEMSAFE reloaded and enhanced
 NEWS 14 JUl 14 FSTA enhanced with Japanese patents
 NEWS 15 JUl 19 Coverage of Research Disclosure reinstated in DWPI
 NEWS EXPRESS
              JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.
 NEWS HOURS
               STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN
              Welcome Banner and News Items
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               * * * * * * STN Columbus
FILE 'HOME' ENTERED AT 15:48:15 ON 08 AUG 2006
=> file caplus
COST IN U.S. DOLLARS
                                                 SINCE FILE
                                                                 TOTAL
                                                     ENTRY
                                                               SESSION
FULL ESTIMATED COST
                                                       0.21
                                                                 0.21
FILE 'CAPLUS' ENTERED AT 15:48:28 ON 08 AUG 2006
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```

\$%^STN; HighlightOn= \*\*\*; HighlightOff=\*\*\* ;

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0 US 2004-00049222/PN  $L_2$ (US2004049222/PN) => s us 2004-0004922/pn 3 US 2004-0004922/PN L3

=> file reg COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 6.98 6.77

FILE 'REGISTRY' ENTERED AT 15:49:24 ON 08 AUG 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 American Chemical Society (ACS)

(US2004004922/PN)

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STRUCTURE FILE UPDATES: 7 AUG 2006 HIGHEST RN 899508-12-4 DICTIONARY FILE UPDATES: 7 AUG 2006 HIGHEST RN 899508-12-4

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=> tra rn l1 TRANSFER L1 1- RN : 19 TERMS L4 L5 19 L4 => d scan REGISTRY COPYRIGHT 2006 ACS on STN L5 19 ANSWERS TN Phenothiazin-5-ium (8CI, 9CI) MF C12 H8 N S

/ Structure 1 in file .gra /

COM, RPS

CT

```
19 ANSWERS
                 REGISTRY COPYRIGHT 2006 ACS on STN
     2-Butanone, 3-methyl- (8CI, 9CI)
IN
     C5 H10 O
MF
     COM
/ Structure 2 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
L5
IN
     Iodine (8CI, 9CI)
MF
     12
CI
     COM
/ Structure 3 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
     3H-Indolium, 1,2,3,3-tetramethyl-5-nitro-, perchlorate (9CI)
IN
     C12 H15 N2 O2 . Cl O4
     CM
          1
/ Structure 4 in file .gra /
     CM
          2
/ Structure 5 in file .gra /
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
IN
     3H-Indolium, 2-[2-[2-[4-(dimethylamino)phenyl]ethenyl]-4-oxo-4H-1-
     benzopyran-3-yl]ethenyl]-1,3,3-trimethyl-5-nitro-, perchlorate (9CI)
MF
     C32 H30 N3 O4 . Cl O4
     CM
          1
/ Structure 6 in file .gra /
     CM
          2
/ Structure 7 in file .gra /
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
IN
     Propanedinitrile, [7-(dimethylamino)-3H-phenothiazin-3-ylidene]- (9CI)
ΜF
     C17 H12 N4 S
```

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
IN
     2,5-Furandione, 3,4-bis(9-anthracenylmethylene)dihydro- (9CI)
    C34 H20 O3
/ Structure 9 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
                 REGISTRY COPYRIGHT 2006 ACS on STN
     19 ANSWERS
     Spiro[2H-1-benzopyran-2,2'-[2H]indole], 1',3'-dihydro-3',3'-dimethyl-6,8-
IN
     dinitro-1'-pentyl- (9CI)
MF
    C23 H25 N3 O5
/ Structure 10 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
                  REGISTRY COPYRIGHT 2006 ACS on STN
L_5
    19 ANSWERS
TN
    10H-Phenothiazine (9CI)
MF
    C12 H9 N S
    COM
CI
/ Structure 11 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
    19 ANSWERS
                 REGISTRY COPYRIGHT 2006 ACS on STN
IN
    Methanamine, N-methyl- (9CI)
MF
    C2 H7 N
CI
    COM
/ Structure 12 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
    19 ANSWERS
                 REGISTRY COPYRIGHT 2006 ACS on STN
IN
    Hydrazine, (4-methylphenyl) - (9CI)
MF
    C7 H10 N2
CI
    COM
/ Structure 13 in file .gra /
```

/ Structure 8 in file .gra /

```
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
L5
IN
     3H-Indole, 2,3,3-trimethyl-5-nitro- (7CI, 8CI, 9CI)
     C11 H12 N2 O2
MF
     COM
/ Structure 14 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
                  REGISTRY COPYRIGHT 2006 ACS on STN
L5
     19 ANSWERS
IN
     Spiro[2H-1-benzopyran-2,2'-[2H]indole], 1',3'-dihydro-3',3'-dimethyl-6,8-
     dinitro-1'-phenyl- (9CI)
MF
     C24 H19 N3 O5
/ Structure 15 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
IN
     Benzo[a][1,4]benzothiazino[3,2-c]phenothiazine-6,9-dione, 5,10-dihydro-
     (9CI)
MF
     C22 H12 N2 O2 S2
/ Structure 16 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
                 REGISTRY COPYRIGHT 2006 ACS on STN
L_5
     19 ANSWERS
IN
     Iodide (I31-), salt with N,N-dimethyl-10H-phenothiazin-3-amine (1:1) (9CI)
MF
    C14 H14 N2 S . I3
     CM
          1
/ Structure 17 in file .gra /
     CM
          2
/ Structure 18 in file .gra /
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L5
     19 ANSWERS
                  REGISTRY COPYRIGHT 2006 ACS on STN
     1,3-Dioxane-4,6-dione, 5-[7-(dimethylamino)-3H-phenothiazin-3-ylidene]-2,2-
IN
     dimethyl- (9CI)
```

```
/ Structure 19 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0
'O' IS NOT VALID HERE
To display more answers, enter the number of answers you would like to
see. To end the display, enter "NONE", "N", "0", or "END".
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):none
=> d his
     (FILE 'HOME' ENTERED AT 15:48:15 ON 08 AUG 2006)
     FILE 'CAPLUS' ENTERED AT 15:48:28 ON 08 AUG 2006
L1
              1 S US 2004-0121262/PN
L2
              0 S US 2004-00049222/PN
L3
              3 S US 2004-0004922/PN
     FILE 'REGISTRY' ENTERED AT 15:49:24 ON 08 AUG 2006
     FILE 'CAPLUS' ENTERED AT 15:49:31 ON 08 AUG 2006
L4
                TRA L1 1- RN :
                                    19 TERMS
     FILE 'REGISTRY' ENTERED AT 15:49:31 ON 08 AUG 2006
L5
             19 SEA L4
=> s 15 and phenothiazin?
         36674 PHENOTHIAZIN?
             6 L5 AND PHENOTHIAZIN?
L<sub>6</sub>
=> d scan
                REGISTRY COPYRIGHT 2006 ACS on STN
     6 ANSWERS
1.6
TN
       ***Phenothiazin-5-ium (8CI, 9CI)***
MF
     C12 H8 N S
CI
     COM, RPS
/ Structure 20 in file .gra /
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
                 REGISTRY COPYRIGHT 2006 ACS on STN
1.6
     6 ANSWERS
       ***Benzo[a][1,4]benzothiazino[3,2-c]phenothiazine-6,9-dione,***
IN
          5,10-dihydro- (9CI) ***
     C22 H12 N2 O2 S2
MF
/ Structure 21 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
L6
     6 ANSWERS
                 REGISTRY COPYRIGHT 2006 ACS on STN
IN
       ***Iodide (I31-), salt with N,N-dimethyl-10H-phenothiazin-3-amine (1:1)***
          (9CI) ***
     C14 H14 N2 S . I3
```

C20 H18 N2 O4 S

CM

```
CM
          2
/ Structure 23 in file .gra /
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
                REGISTRY COPYRIGHT 2006 ACS on STN
     6 ANSWERS
L6
       ***Propanedinitrile, [7-(dimethylamino)-3H-phenothiazin-3-ylidene]-***
IN
         (9CI) ***
MF
    C17 H12 N4 S
/ Structure 24 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
    6 ANSWERS
                REGISTRY COPYRIGHT 2006 ACS on STN
L6
       ***1,3-Dioxane-4,6-dione, 5-[7-(dimethylamino)-3H-phenothiazin-3-***
IN
         ylidene] -2,2-dimethyl- (9CI) ***
MF
   C20 H18 N2 O4 S
/ Structure 25 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
     6 ANSWERS
                REGISTRY COPYRIGHT 2006 ACS on STN
L6
TN
      ***10H-Phenothiazine (9CI)***
MF
    C12 H9 N S
    COM
CT
/ Structure 26 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
ALL ANSWERS HAVE BEEN SCANNED
=> d his
     (FILE 'HOME' ENTERED AT 15:48:15 ON 08 AUG 2006)
    FILE 'CAPLUS' ENTERED AT 15:48:28 ON 08 AUG 2006
              1 S US 2004-0121262/PN
L1
L2
              0 S US 2004-00049222/PN
L3
              3 S US 2004-0004922/PN
    FILE 'REGISTRY' ENTERED AT 15:49:24 ON 08 AUG 2006
    FILE 'CAPLUS' ENTERED AT 15:49:31 ON 08 AUG 2006
L4
                TRA L1 1- RN :
                                     19 TERMS
    FILE 'REGISTRY' ENTERED AT 15:49:31 ON 08 AUG 2006
L5
             19 SEA L4
```

/ Structure 22 in file .gra /

```
L6
              6 S L5 AND PHENOTHIAZIN?
=> tra rn 13
L7
            TRANSFER L3 1- RN :
                                    47 TERMS
            47 L7
=> s 18 and phenothiazin?
         36674 PHENOTHIAZIN?
             5 L8 AND PHENOTHIAZIN?
=> s 19 or 16
            10 L9 OR L6
L10
=> d scan
                  REGISTRY COPYRIGHT 2006 ACS on STN
L10
    10 ANSWERS
     ***10H-Phenothiazine-3,7-diamine, N,N,N',N'-tetrapropyl- (9CI)***
TN
MF
     C24 H35 N3 S
/ Structure 27 in file .gra /
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):none
=> s l10 and (dinitrile or propanedinitrile or dioxane)
         42820 DINITRILE
             1 DINITRILES
         42820 DINITRILE
                 (DINITRILE OR DINITRILES)
         34556 PROPANEDINITRILE
         38369 DIOXANE
Lll
             2 L10 AND (DINITRILE OR PROPANEDINITRILE OR DIOXANE)
=> file caplus
COST IN U.S. DOLLARS
                                                 SINCE FILE
                                                                  TOTAL
                                                      ENTRY
                                                                SESSION
FULL ESTIMATED COST
                                                      20.80
                                                                 57.36
FILE 'CAPLUS' ENTERED AT 15:54:03 ON 08 AUG 2006
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FILE LAST UPDATED: 7 Aug 2006 (20060807/ED)
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They are available for your review at:
http://www.cas.org/infopolicy.html
=> s l11
L12
             1 L11
=> d all
```

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN

```
DN
     140:50342
ED
     Entered STN: 26 Dec 2003
ΤI
     Materials for optical medium copy-protection transiently reacting to a
     reader beam of optical disk
     Selinfreund, Richard H.; Gerber, Scott; Goyette, Donald R.; Colandreo,
IN
     Michael; Vig, Rakesh; Li, Junzhong; Cook, Ewell; Turner, Tomeko
     Verification Technologies, Inc., USA
PA
     PCT Int. Appl., 51 pp.
SO
     CODEN: PIXXD2
DT
     Patent
     English
LA
    ICM G11B007-00
IC
     ICS B29D011-00
     74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
CC
     Reprographic Processes)
     Section cross-reference(s): 41
FAN.CNT 5
     PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                                                                  DATE
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                                        WO 2003-US11975
PΙ
     WO 2003107331
                        A1
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            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
            UG, US, UZ, VN, YU, ZA, ZM, ZW
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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            PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA,
            UG, US, UZ, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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            FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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    WO 2003-US11975
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CLASS
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PATENT NO.
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                ICS
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                IPCI
                       G11B0007-00 [ICM,7]; B29D0011-00 [ICS,7]
                IPCR
                       B29D0011-00 [I,A]; B29D0011-00 [I,C*]; C07D0279-00
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AN

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[I,C*]; C07D0279-18 [I,A]; G11B0007-00 [I,A];
                       G11B0007-00 [I,C*]; G11B0007-005 [I,A]; G11B0007-007
                       [I,A]; G11B0007-007 [I,C*]; G11B0007-24 [I,A];
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AB The invention relates to a method and system for providing copy-protected optical medium using transient optical state change security materials capable of changing optical state and software code to detect such change in optical state. The material protects stored information from copied by a conventional optical medium reader.

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STN INTERNATIONAL LOGOFF AT 15:54:23 ON 08 AUG 2006

ST

IT

Optical disks

optical copy protection reader disk

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Connecting via Winsock to STN
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LOGINID:ssspat1756mja
PASSWORD:
LOGINID/PASSWORD REJECTED
The loginid and/or password sent to STN were invalid.
You either typed them incorrectly, or line noise may
have corrupted them.
Do you wish to retry the logon?
Enter choice (y/N):
Do you wish to use the same loginid and password?
Enter choice (y/N):
Enter new loginid (or press [Enter] for ssspat1756mja):
Enter new password:
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NEWS 1
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NEWS 2
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NEWS 4 APR 04 STN AnaVist $500 visualization usage credit offered
NEWS 5 MAY 10 CA/Caplus enhanced with 1900-1906 U.S. patent records
NEWS 6 MAY 11 KOREAPAT updates resume
NEWS 7 MAY 19 Derwent World Patents Index to be reloaded and enhanced
NEWS 8 MAY 30 IPC 8 Rolled-up Core codes added to CA/CAplus and
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NEWS 9 MAY 30
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NEWS 11
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 NEWS 14
 NEWS 15 JUl 19 Coverage of Research Disclosure reinstated in DWPI
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 NEWS EXPRESS
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 NEWS HOURS
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 NEWS LOGIN
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 NEWS IPC8
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Enter NEWS followed by the item number or name to see news on that
specific topic.
  All use of STN is subject to the provisions of the STN Customer
  agreement. Please note that this agreement limits use to scientific
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\$\frac{1}{2}STN; HighlightOn= \*\*\*; HighlightOff=\*\*\*

research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may

result in loss of user privileges and other penalties.

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COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST 668.20 668.41

FILE 'CAPLUS' ENTERED AT 16:11:14 ON 08 AUG 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 8 Aug 2006 VOL 145 ISS 7 FILE LAST UPDATED: 7 Aug 2006 (20060807/ED)

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L9 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN

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ED Entered STN: 26 Dec 2003

TI Materials for optical medium copy-protection transiently reacting to a reader beam of optical disk

IN Selinfreund, Richard H.; Gerber, Scott; Goyette, Donald R.; Colandreo,
Michael; Vig, Rakesh; Li, Junzhong; Cook, Ewell; Turner, Tomeko

PA Verification Technologies, Inc., USA

SO PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DT Patent

LA English
IC ICM G11B00

ICM G11B007-00 ICS B29D011-00

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 5

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 CN 1774427
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                        C07D0279-18 [I,A]; C07D0279-00 [I,C*]; G11B0007-24
                        [I,A]
    The invention relates to a method and system for providing copy-protected
AB
    optical medium using transient optical state change security materials
    capable of changing optical state and software code to detect such change
     in optical state. The material protects stored information from copied by
     a conventional optical medium reader.
ST
    optical copy protection reader disk
IT
    Optical disks
        (copy-protected; materials for optical medium copy-protection
        transiently reacting to a reader beam of optical disk)
IT
    Dyes
        (materials for optical medium copy-protection transiently reacting to a
        reader beam of optical disk)
IT
     74-88-4, Methyl iodide, reactions
                                         92-84-2, Phenothiazine
                                                                   124-40-3,
    Dimethylamine, reactions
                                539-44-6
                                           563-80-4
                                                      7553-56-2, Iodine,
    reactions
    RL: RCT (Reactant); RACT (Reactant or reagent)
        (copy protection dye of materials for optical medium)
ΙT
    109-77-3P, Malononitrile
                                261-89-2DP, Phenothiazin-5-ium, tetraiodide
                                        ***636602-80-7P***
     salt
            3484-22-8P
                         636602-79-4P
    RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (copy protection dye of materials for optical medium)
IT
    86879-79-0P
    RL: SPN (Synthetic preparation); TEM (Technical or engineered material
    use); PREP (Preparation); USES (Uses)
```

[I,C\*]; C07D0279-18 [I,A]; G11B0007-00 [I,A];

```
(copy protection dye of materials for optical medium)
IT
    23168.55-0 96692-25-0 144280-08-0 636602-81-8
                                                       636602-82-9
    636602-83-0
                636602-84-1
    RL: TEM (Technical or engineered material use); USES (Uses)
       (copy protection dye of materials for optical medium)
             THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
RE
(1) Smith; US 5815484 A 1998
L9
    ANSWER 2 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN
    DN
    125:127309
ED
    Entered STN: 09 Aug 1996
    Nonlinear optical materials and heterocyclic dyes for them
TI
IN
    Aramaki, Shinji; Kubo, Yoshiharu
    Mitsubishi Chemical Corp., Japan
PA
    Jpn. Kokai Tokkyo Koho, 7 pp.
SO
    CODEN: JKXXAF
DТ
    Patent
    Japanese
LA
    ICM G02F001-35
IC
    ICS C07D241-46; C07D279-36; C09B057-00
    73-10 (Optical, Electron, and Mass Spectroscopy and Other Related
CC
    Properties)
    Section cross-reference(s): 41
FAN.CNT 1
    PATENT NO.
                       KIND
                             DATE
                                       APPLICATION NO.
                                                              DATE
                                         -----
    ______
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                             -----
                                                              _____
    JP 08122836
                                      JP 1994-253795
                       A2
                             19960517
                                                              19941019
PΙ
PRAI JP 1994-253795
                              19941019
CLASS
               CLASS PATENT FAMILY CLASSIFICATION CODES
 PATENT NO.
 -----
               _____
 JP 08122836
               ICM
                      G02F001-35
                      C07D241-46; C07D279-36; C09B057-00
               ICS
                      G02F0001-35 [ICM,6]; C07D0241-46 [ICS,6]; C07D0279-36
                IPCI
                      [ICS,6]; C09B0057-00 [ICS,6]
os
    MARPAT 125:127309
GΙ
/ Structure 1 in file .gra /
    The dyes comprise heterocyclic compds. described by the general formula I
AB
     [X = S, NR4; R1-2 = (substituted) alkyl; R1 and R2 may bond to form a
    ring; R3 = H, (substituted) alkyl, (substituted) alkoxy, (substituted)
    acylamino,; R4 = H, alkyl; Q = C(CN)2, C(CONH2), NCN.]. The materials
    contain the dyes and have structures without inversion symmetry. The dyes
    show high hyperpolarizability.
st
    nonlinear optical material heterocyclic dye
IT
    Dyes
       (heterocyclic; nonlinear optical materials contg. heterocyclic dyes)
IT
    Optical materials
       (nonlinear, nonlinear optical materials contg. heterocyclic dyes)
    9011-14-7, Poly(methyl methacrylate)
IT
    RL: DEV (Device component use); USES (Uses)
       (nonlinear optical materials contg. heterocyclic dyes)
IT
      ***121262-87-1***
    RL: TEM (Technical or engineered material use); USES (Uses)
       (nonlinear optical materials contg. heterocyclic dyes)
    ANSWER 3 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
L9
ΑN
    112:189089
DN
ED
    Entered STN: 12 May 1990
ΤI
    Napthoquinonmethide derivatives for optical recording materials
IN
    Kubo, Yuji; Yoshida, Katsuhei
PA
SO
    Jpn. Kokai Tokkyo Koho, 5 pp.
    CODEN: JKXXAF
DT
    Patent
```

```
ICM @07D279-36
TC
    ICS B41M005-26
    74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
    Reprographic Processes)
    Section cross-reference(s): 28
FAN.CNT 1
                    KIND DATE APPLICATION NO. DATE
    PATENT NO.
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                            -----
                                       -----
                                                            -----
    JP 01228976
                      A2
                            19890912 JP 1988-53766
                                                      19880309
PΙ
                            19880309 .
PRAI JP 1988-53766
CLASS
PATENT NO.
             CLASS PATENT FAMILY CLASSIFICATION CODES
              ----
 -----
              ICM C07D279-36
 JP 01228976
               ICS
                    B41M005-26
               IPCI    C07D0279-36 [ICM,4]; C07D0279-00 [ICM,4,C*];
                     B41M0005-26 [ICS,4]
GT
/ Structure 2 in file .gra /
    The title deriv. is I [R1, R2 = lower alkyl]. The deriv. is useful in
AB
    optical recording media. The deriv. shows 600-700 nm absorption.
ST
    naphthoquinonmethide deriv optical recording material
IT
    Recording materials
       (optical, naphthoquinonmethide deriv. as)
      ΙT
      ***126656-10-8***
                         ***126656-11-9***
                                             ***126656-12-0***
      ***126656-13-1***
***126656-16-4***
                        ***126656-14-2*** ***126656-15-3***
                         ***126656-17-5***
    RL: USES (Uses)
       (optical recording material)
      IT
    RL: SPN (Synthetic preparation); PREP (Preparation)
       (prepn. and use of, as optical recording material)
    5518-09-2 126656-05-1 126656-06-2
IT
    RL: RCT (Reactant); RACT (Reactant or reagent)
       (reaction of, naphthoquinonmethide optical recording material from)
L9
    ANSWER 4 OF 4 CAPLUS COPYRIGHT 2006 ACS on STN
AN
    1989:424940 CAPLUS <<LOGINID::20060808>>
DN
    111:24940
ED
    Entered STN: 21 Jul 1989
ТT
    Synthesis of 3-dicyanomethylene-7-diethylaminobenzo[a]phenothiazone
ΑU
    Kubo, Yuji; Kuwana, Minoru; Yoshida, Katsuhira
CS
    Fac. Sci., Kochi Univ., Kochi, 780, Japan
SO
    Chemistry Express (1988), 3(11), 663-6
    CODEN: CHEXEU; ISSN: 0911-9566
DT
    Journal
LA
CC
    41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
    Sensitizers)
GΙ
/ Structure 3 in file .gra /
AB
    The deep colored title compd. I, which has an absorption max. at 659 nm
    (.epsilon.max = 61300 mol-1dm3cm-1) in CHCl3 was prepd. by condensing
    1-naphthylmalononitrile with 2-amino-5-diethylaminophenylthiosulfuric
ST
    UV dicyanomethylenediethylaminobenzophenothiazone; benzophenothiazone
    dicyanomethylene diethylamino UV; condensation naphthylmalononitrile
    aminodiethylaminophenylthiosulfuric acid
IT
    Dyes, cyanine
```

((dicyanomethylene)(diethylamino)benzophenothiazone, prepn. and UV

LA

Japanese

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spectrum of)
    Ultraviolet and visible spectra
IT
        (of (dicyanomethylene)diethylaminobenzophenothiazone)
IT
     116429-26-6
     RL: PRP (Properties)
        (UV spectrum of)
     5518-09-2, 2-(1-Naphthyl) malononitrile
IT
     RL: USES (Uses)
        (condensation of, with amino(diethylamino)phenylthiosulfuric acid)
     93739-14-1, 2-Amino-5-diethylaminophenylthiosulfuric acid
IT
     RL: USES (Uses)
        (oxidative condensation of, with naphthylmalononitrile)
       ***121262-87-1P***
IT
     RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
        (prepn. and UV spectrum of)
=> d his
     (FILE 'HOME' ENTERED AT 16:08:05 ON 08 AUG 2006)
     FILE 'REGISTRY' ENTERED AT 16:08:14 ON 08 AUG 2006
                STRUCTURE UPLOADED
L1
L2
                STRUCTURE UPLOADED
L3
                STRUCTURE UPLOADED
                STRUCTURE UPLOADED
L4
              0 S L1 SSS FULL
L5
             14 S L2 SSS FULL
L6
              0 S L3 SSS FULL
L7
              0 S L4 SSS FULL
L8
     FILE 'CAPLUS' ENTERED AT 16:11:14 ON 08 AUG 2006
L9
              4 S L6
=> log y
                                                  SINCE FILE
                                                                  TOTAL
COST IN U.S. DOLLARS
                                                       ENTRY
                                                                SESSION
FULL ESTIMATED COST
                                                       12.74
                                                                 681.15
                                                  SINCE FILE
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
                                                                  TOTAL
                                                       ENTRY
                                                                SESSION
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-3.00

-3.00

STN INTERNATIONAL LOGOFF AT 16:11:47 ON 08 AUG 2006

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